

IN THE CLAIMS:

1. (Currently Amended) A rotation angle-detecting device comprising:

a main rotator;

a first detecting rotator having contact with the main rotator, and for rotating faster than the main rotator;

a first magnet located at a center of the first detecting rotator;

a first magnetic detector located adjacent a surface opposite the first magnet;

a second detecting rotator having contact with the first detecting rotator, the second detecting rotator for rotating differently in speed from the first detecting rotator;

a second magnet located at a center of the second detecting rotator;

a second magnetic detector located adjacent a surface opposite the second magnet; and

a first ferromagnetic body encircling one of said first ~~or~~ magnet and said second magnets magnet, and incorporated in and thus rotatable with one of the first or second detecting rotators

2. (Previously Presented) The rotation angle-detecting device of Claim 1, wherein each of the first magnetic detector and the second magnetic detector includes an anisotropic magnetic resistance element.

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The rotation angle-detecting device of Claim 1 further comprising a second ferromagnetic body incorporated in one of the first magnetic detector or the second magnetic detector,

wherein when the first ferromagnetic body is incorporated in the first detecting rotator, the second ferromagnetic body is incorporated in the second magnetic detector, and when the first ferromagnetic body is incorporated in the second detecting rotator, the second ferromagnetic body is incorporated in the first magnetic detector.

6. (Previously Presented) The rotation angle-detecting device of Claim 1, wherein the first ferromagnetic body comprises a ring-shaped iron plate.

7. (Previously Presented) The rotation angle-detecting device of Claim 1, wherein the first ferromagnetic body comprises pieces arranged in a form of a ring.

8. (Previously Presented) The rotation angle-detecting device of Claim 1 further comprising a calculator for calculating a rotation angle of the main rotator according to outputs from the first magnetic detector and the second magnetic detector.

9. (Previously Presented) The rotation angle-detecting device of Claim 8, wherein the calculator is for calculating the rotation angle of the main rotator from a phase difference in the outputs of the first magnetic detector and the second magnetic detector.

10. (Previously Presented) A rotation angle-detecting device comprising:

- a main rotator;

- a first detecting rotator having contact with the main rotator, and for rotating faster than the main rotator;

- a first magnet located at a center of the first detecting rotator;

- a first magnetic detector located adjacent a surface opposite the first magnet;

- a second detecting rotator having contact with the first detecting rotator, the second detecting rotator for rotating at a different speed than the first detecting rotator;

- a second magnet located at a center of the second detecting rotator;

- a second magnetic detector located adjacent a surface opposite the second magnet; and

- a first ferromagnetic body encircling and fixed with respect to one of the first magnetic detector and the second magnetic detector.

11. (Previously Presented) The rotation angle-detecting device of Claim 10, wherein each of the first magnetic detector and the second magnetic detector includes an anisotropic magnetic resistance element.

12. (Previously Presented) The rotation angle-detecting device of Claim 10 further comprising a second ferromagnetic body incorporated in one of the first detecting rotator and the second detecting rotator,

wherein when the first ferromagnetic body is fixed with respect to the first magnetic detector, the second ferromagnetic body is incorporated in the second detecting rotator, and when the first ferromagnetic body is fixed with respect to the second magnetic detector, the second ferromagnetic body is incorporated in the first detecting rotator.

13. (Previously Presented) The rotation angle-detecting device of Claim 10, wherein the first ferromagnetic body comprises a ring-shaped iron plate.

14. (Previously Presented) The rotation angle-detecting device of Claim 10, wherein the first ferromagnetic body comprises pieces arranged in a form of a ring.

15. (Previously Presented) The rotation angle-detecting device of Claim 10 further comprising a calculator for calculating a rotation angle of the main rotator according to outputs from the first magnetic detector and the second magnetic detector.

16. (Previously Presented) The rotation angle-detecting device of Claim 15, wherein the calculator is for calculating the rotation angle of the main rotator from a phase difference in the outputs of the first magnetic detector and the second magnetic detector.

17. (New) The rotation angle-detecting device of Claim 1, wherein the first ferromagnetic body is encircling only one of said first magnet or second magnet.

18. (New) The rotation angle-rotation device of Claim 10, wherein the first ferromagnetic body is encircling only one of said first and second magnetic detectors, and is fixed with respect to said only one magnetic detector.